

Well Abandonment - Oil and Gas

The procedure for well abandonment is very specific and an inspector from the Division of Oil and Gas (IDNR) **must be present** when the well is plugged. If an existing oil or gas related well is discovered during construction, INDOT or its contractor should contact the Division of Oil and Gas for details regarding abandonment requirements.

312 IAC 16-5-19 Plugging and abandoning wells

- (a) Wells shall be plugged in accordance with IC 14-37-8.
- (b) With respect to a well for oil and gas purposes, an owner or operator shall place cement plugs using the pump and plug or displacement method from the bottom to the surface or must do the following:
 - (1) Place a cement plug from:
 - (A) fifty (50) feet below an oil or natural gas formation;
 - (B) an injection zone; or
 - (C) the bottom of a hole to one hundred (100) feet above the top of the formation.
 - (2) Place a cement plug from fifty (50) feet below to one hundred (100) feet above a commercially mineable coal resource. Where a hole terminates less than fifty (50) feet below a commercially mineable coal resource, the cement plug shall commence at the bottom of the hole. A commission representative may require use of a mechanical plug, packer, or other suitable material where appropriate to securing placement of the cement plug.
 - (3) Place an appropriate mechanical plug or packer at the top of a producing formation or injection zone and set a fifty (50) foot cement plug above the mechanical plug or packer.
 - (4) Where insufficient casing was set or where surface casing was not cemented to the surface, the production string of casing shall be removed from fifty (50) feet below the deepest underground source of drinking water. The owner or operator shall place a cement plug from the remaining production string of casing to three (3) feet below the surface.
 - (5) A dry hole that does not enter a commercially mineable coal resource may be filled with mud-laden fluid, well cuttings, pea gravel, or crushed rock from the bottom of the hole to fifty (50) feet below the deepest underground source of drinking water. The owner or operator shall place a cement plug from fifty (50) feet below the deepest underground source of drinking water to three (3) feet below the surface.
- (c) Within six (6) months of abandoning a well, an owner or operator shall do the following:
 - (1) Clear the area of refuse and equipment.
 - (2) Dispose of waste fluids.
 - (3) Drain and fill excavations.

- (4) Remove substructures.
- (5) Restore the surface as nearly as practicable to its condition prior to drilling.
- (d) The owner of surface rights may with consent of the owner or operator apply to the division to retain equipment, fixtures, or pits placed with respect to a well drilled for oil and gas purposes. The application shall be made on a departmental form releasing the owner or operator and its agents from responsibility for restoration of the well site, except as provided in the application.
- (e) An owner or operator may apply to the commission to convert a well for oil and gas purposes otherwise to be abandoned to a fresh water well. The application shall be made on a division form and shall include the following information:
 - (1) The depth to which an owner or operator proposes to plug a well.
 - (2) Written consent by persons who hold a recorded interest at or above the elevation of the plug.
 - (3) A statement by the owner or owners of surface rights to release the owner or operator from an obligation to abandon the well, except as provided in the application.The division shall authorize the conversion to a fresh water well upon a finding that the application has been properly completed and that the conversion will not violate IC 14-37 or this article.
- (f) The use of bridges in plugging wells is prohibited. The owner or operator shall drill out and replug the hole if unfilled below the bridge.
- (g) If unauthorized material is placed in a hole, the division may require the material to be removed before plugging operations are commenced.
- (h) A permanent plugback, other than a plugback in a cased hole, shall be witnessed by a commission representative.
- (i) If a hole is obstructed by equipment associated with drilling or operating a well, and if the removal of that equipment is impracticable, the division director may authorize a special method to abandon the well. The owner or operator shall obtain approval of the special method from a commission representative before implementation.

312 IAC 16-5-20 Temporary abandonment of wells

- (a) An owner or operator may defer plugging and abandonment under IC 14-37-8-1 for a well that has been drilled, completed, and cased for production if either of the following is satisfied:
 - (1) Abandonment is deferred under subsection (b).
 - (2) The requirements of subsection (c) are completed for temporary abandonment status.
- (b) An owner or operator may defer plugging and abandonment of a well for one (1) year, or for any lesser time prescribed by the division, if both of the following are satisfied:
 - (1) The owner or operator notifies the division, in writing, on a form provided by the division, that plugging and abandonment are being deferred. The notification must be filed with the division within sixty (60) days of the following:
 - (A) Well completion for a well not placed in operation.

(B) The termination of operations for a well placed in operation.

(2) The owner or operator complies with each of the following technical requirements:

(A) The well is provided with an intact, leak-free wellhead or is capped with a valve and configured to monitor casing or casing-tubing annulus pressure.

(B) The well site is kept free of unnecessary equipment, vegetation, and debris.

(C) The excavations associated with drilling are filled and leveled.

(D) Signs are posted and maintained under section 10 of this rule.

(E) A properly executed completion or recompletion report is submitted to the division under section 17 of this rule.

(F) The well is cased and cemented under this rule.

(G) Bond is maintained on the well as required under this rule.

(H) A demonstration is made under subsection (d) that the well does not threaten an underground source of drinking water.

(c) An owner or operator of a well may seek temporary abandonment status for a well that conforms to the requirements of IC 14-37 and this rule. The owner or operator seeking temporary abandonment status must file a completed application on a division form within sixty (60) days of the following:

(1) For a well not placed in operation, the date on which drilling of the well is completed.

(2) For a well placed in operation, the date on which operation of the well is terminated.

(3) If the department has approved a deferral of plugging and abandonment under subsection (b), the date of expiration of the deferral.

(d) The following governs the demonstration required under subsection (b)(2)(H) that a well does not threaten an underground source of drinking water:

(1) The owner or operator must notify an inspector at least forty-eight (48) hours before a demonstration is to be performed.

(2) The owner or operator must use one (1) of the following methods in performing the demonstration:

(A) Monitor the fluid level using acoustical or wire line measuring methods on an annual basis and report the results of monitoring on a form prescribed by the division. If the fluid level is closer than one hundred (100) feet to the base of the lowest underground source of drinking water, the owner or operator shall notify an inspector within twenty-four (24) hours and shall do one (1) of the following:

(i) Plug and abandon the well under section 19 of this rule.

(ii) Set a mechanical bridge, cement, or calseal plug within two hundred (200) feet above the perforated or open hole interval in the cemented portion of the casing, but no less than one hundred (100) feet below the base of the lowest underground source of drinking water. Remove any fluid to a level at least one hundred (100) feet below the base of the lowest underground source of drinking water.

(iii) Set a mechanical bridge, cement, or calseal plug within two hundred (200) feet above the perforated or open hole interval in the cemented portion of the casing, but no less than one hundred (100) feet below the base of the lowest underground source of drinking water. Pressure test the casing at least once every five (5) years during any period of temporary abandonment by filling the casing above the mechanical bridge, cement, or calseal plug with water and placing a pressure of at least three hundred (300) pounds per square inch gauge (which may vary no more than three percent (3%)) for a period of thirty (30) minutes. During the thirty (30) minute period of the test, additional pressure may not be applied to the casing.

(iv) Install tubing and packer within two hundred (200) feet above the perforated or open hole interval in cemented portion of the casing, but no less than one hundred (100) feet below the base of the lowest underground source of drinking water. Pressure test the casing tubing annulus at least once every five (5) years during any period of temporary abandonment by filling the annulus above the packer with water and placing a pressure of at least three hundred (300) pounds per square inch gauge (which may vary no more than three percent (3%)) for a period of thirty (30) minutes. During the thirty (30) minute period of the test, additional pressure may not be applied to the annulus.

(v) If a bridge, cement, or calseal plug was lawfully set before the effective date of this section, which is one hundred (100) feet below the base of the lowest underground source of drinking water, but no less than one hundred (100) feet below the calculated top of the cement, fluid level monitoring as described in item (iii) or a pressure test as described in item (iv) may be used to demonstrate the well does not threaten an underground source of drinking water.

(B) Perform a mechanical integrity test as described in clause (A)(ii), (A)(iii), or (A)(iv).

(C) For a gas well, with a minimum wellhead pressure of one hundred (100) pounds per square inch, each of the following standards apply:

(i) At least ten percent (10%) of the initial shut-in pressure shall be bled off, and the well shall be shut back in under the supervision of an inspector.

(ii) Once the well returns to the maximum shut-in pressure, the pressure must be maintained at a constant level for thirty (30) minutes in the pressure of an inspector.

(iii) A pressure measuring device displaying a readout of the shut-in pressure shall be attached to the wellhead and shall be accessible at all times for inspection by the inspector.

(e) Temporary abandonment status may be granted for a period not to exceed five (5) consecutive years.

(f) Upon the expiration of temporary abandonment status or its renewal, the owner or operator must do one (1) of the following:

(1) Operate the well for its permitted purpose.

(2) Plug and abandon the well under section 19 of this rule.

(3) Submit a request for temporary abandonment renewal, on a form prescribed by the division, which demonstrates that the engineering, geologic, or economic reasons for retaining a well on temporary abandonment status outweigh the potential benefit from operating, plugging, or abandoning the well. Demonstrate the well does not threaten an underground source of drinking water by using a method, as selected by the division, under subsection (d)(2)(A)(ii), (d)(2)(A)(iii), or (d)(2)(A)(iv).

(g) If an owner or operator fails to file an annual report, as required under subsection (d)(2)(A), the division may require the owner or operator to do any of the following:

(1) Demonstrate the well has mechanical integrity using a method selected by the division under subsection (d)(2)(A)(ii), (d)(2)(A)(iii), or (d)(2)(A)(iv).

(2) Operate the well for the permitted purpose.

(3) Plug and abandon the well under section 19 of this rule.

(h) An owner or operator must notify the division in writing within thirty (30) days of any change in the operational status of a well that has been granted temporary abandonment status under this section.

(i) Operation of a well that is subject to this section removes the well from temporary abandonment status.